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## Psychology of Differences Between Sexes Still Obscure

OF ALL the differences among mankind that lend spice to the human comedy, none is more fascinating to contemplate than the difference between the sexes. In the realm of anatomy and physiology, we are beginning to understand the foundations of the difference.

It has long been known that males have two dissimilar sex chromosomes, one X and one Y. Females have two Xs. For many years, geneticists relied upon fruit flies as models for the action of the chromosomes in man. This does not always work. In fruit flies, the Y chromosomes is almost inert, and sex is deter-mined by the number of Xs. One makes male and two make female, regardless of the Y. Only within the decade have we learned that in man and other mammals the Y chromosome is an active influence and determines maleness directly.

MEN AND women, need it be said, differ a great deal in their characteristic personalities. We are nevertheless hard-pressed to find solid scientific evidence for which of these differences in temperament, congeniality, competitiveness, intelligence or achievement are direct primary effects of the sex chromosomes on the brain; which are secondary effects of the hormones, and which are third-order effects of the social milieu and, in turn, of the individual's own self-image.

· Almost from the instant

of birth, an infant is perceived as boy or girl by his or her mother, and reared accordingly. The infant who is regarded as an "it" should arouse alarm, whether the ambiguity lies in the child's anatomy or in the parents' perception of his identity.

The difficulty in ascribing traits is typical of the root problems that face the student of the development and genetics of human personality and leave him with little solid to say about sex or experiments with basic principles of child-rearing raise the deepest ethical problems.

On the other hand, if we simply watch deviant family behavior as it happens, we may wonder if there is not a genetic factor in action, too. Harshly punitive parents are often correlated with agggessive pathology in their children, but we may never learn the roots of the parent's own behavior, and this may be transmitted genetically or by the act of brutal punishment.

BACK TO BOYS and girls: "Are boys smarter/" is an often-asked question. In fact, IQ tests are intentionally fudged to make them come out with 100 as the average for boys and girls of a given age and the dominant social class. (The sex-equalization alone may unintentionally discriminate against the performance of ethnic minorities.)

Prof. H. A. Witkin and his colleagues at the Psychology Laboratories at the Downstate Medical Center in Brooklin have focused on sex differences in "psycholog i c a l differentiation." Their main measure is a test for "field in dependence," the extent to which an individual separates the context from the core of a problem. Field-independent people are more "analysical" in problem solving and have more sharply defined perceptions of their own body—for example, in their ability to identify the vertical in a crazily tilted room.

Women are characteristically more field-dependent than men but tend to be superior in verbal skills, for which field dependence may be an asset. These results, which can be observed very early, are some of the most clear-cut in the psychology of sex differences, but they still do not prove their biological origin.

DR. WITKIN has, flowever, recently reported on a preliminary analysis of a group of girls who have a chromosome anomaly, a single X (and, being girls, no Y). They had an even larger discrepancy between poor analytical tests (field independence) and high verbal skill, than normal girls, both relative to boys.

It is unlikely that the single-X girls were recongnized by their parents as biologically different. This example—and it is a thin one so far—is the best now availble of a biological genetic effect on the psychological style of an individual, apart from the gross defects typed

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